Family Name:	
Other Names:	
Signature:	
Student Number:	

# THE UNIVERSITY OF NEW SOUTH WALES SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

#### Sample Examination

## COMP 3411 Artificial Intelligence COMP 9414 Artificial Intelligence COMP 9814 Extended Artificial Intelligence

Exam Duration: 2 hours Reading Time: 10 minutes

This paper has 12 pages including this cover page.

COMP9414 Students should answer only Questions 1 to 10 COMP3411/9814 Students should answer ALL Questions (1 to 11)

#### **Authorised materials:**

• Approved Calculator.

#### **Instructions to Students:**

- This paper counts for 60% of your final grade.
- Write answers in ink, in the script books provided.
- Hand in question paper and script books when you are finished.
- All questions may be attempted.
- Start your answer to each question on a new page.

#### **Question 1.**

## **ENVIRONMENT TYPES**

... AND / OR ...

AGENT TYPES

(SIMILAR TO WEEK 2 EXERCISES)

## Question 2.

## PROLOG PROGRAMMING

(SIMILAR TO WEEK 1/2 PROLOG EXERCISES)

## Question 3.

## PATH SEARCH

(SIMILAR TO WEEK 3 EXERCISES)

## Question 4.

## HEURISTIC PATH SEARCH

(SIMILAR TO WEEK 4 EXERCISES)

## Question 5.

## GAMES

(SIMILAR TO WEEK 5 EXERCISES)

Question 6.

LEARNING AND DECISION TREES

(SIMILAR TO WEEK 6 EXERCISES)

Question 7.

## PERCEPTRONS AND NEURAL NETWORKS

(SIMILAR TO WEEK 7 EXERCISES)

Question 8.

## CONSTRAINT SATISFACTION

(SIMILAR TO WEEK 8 EXERCISES)

Question 9.

PROPOSITIONAL AND FIRST-ORDER LOGIC

(SIMILAR TO WEEK 9 EXERCISES)

Question 10.

UNCERTAINTY AND PROBABILITY

(SIMILAR TO WEEK 10 EXERCISES)

#### **Question 11.**

## REACTIVE AGENTS

... AND / OR ...

## **EVOLUTIONARY COMPUTATION**

... AND / OR ...

REINFORCEMENT LEARNING

(SIMILAR TO WEEK 2, 6, 7 EXERCISES)